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from SOLO FOR SLIDING TROMBONE

by JOHN CAGE

"All of the pieces here deal with the concepts of chance and improvisation in the creation of art."

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looking back at *Ear* magazine

Pieces from Ear Magazine

From the Editor

**Loren
Means**

MUSICIAN & ARTIST

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Ear magazine was founded by Charles Shere in 1972. Shere was the “serious” music critic for the Oakland, CA *Tribune*. The early *Ears* were small, sometimes only one sheet of tabloid-size paper, folded four times. *Ear* was given away at concerts, but Shere also attempted to drum up subscriptions. He teamed up with Beth Anderson, a composer and performance artist, who started a New York version of *Ear* when she moved there. Shere then retired from the fray, and *Ear* was resuscitated by a group of composers associated with the Mills College Tape Music Center. Editors included composers Valerie Samson, Bob Davis, David Doty, and Jackie Summerfield.

I assumed the editorship of *Ear* in 1980. At that time I had stopped being a filmmaker and was concentrating on music and theater criticism. My first musical love was jazz, but I was interested in all kinds of avant-garde music, and there was plenty of it in the Bay Area. I probably assumed the editorship because I was tired of dealing with editors myself, as well as the fact that I believed in what I thought *Ear* stood for. I lasted almost two years as editor, finally succumbing to the same dilemma that had burned out the previous editors: there was simply nobody involved in the publication of *Ear* who had any sense of, or taste for, business.

Looking back on that time, almost 20 years ago, I’m struck by the level of idealism. In the Seventies the composer Charles Wourinen was quoted as saying, “How do you make a revolution when the revolution before last said ‘anything goes?’” Back then there was widespread belief in revolution, and in progress in art. Now, we have anything goes, but the hope of changing the word through art is gone.

At that time there were two branches of avant-garde music, one called New Music and the other called Free Music. New Music is still alive and well, but Free Music seems to have faded into the background. Free Music included a variety of approaches, but one of its salient tenets was free improvisation, playing without reference to melody, harmony, or rhythmic structure. The idea now seems a bit bizarre to me, but I must confess with embarrassment that I actively participated in it, as an electronic trombonist, and promoted it in *Ear* and as organizer of the last couple of iterations of the

Free Music Festival, which died when *Ear* did.

Possibly because of my influence, all of the pieces here deal with the concepts of chance and improvisation in the creation of art. One of the most provocative statements on this topic that I’ve heard was by trombonist Wayne Wallace (now director of the jazz band at San Francisco State University), from whom I took one lesson before abandoning the instrument in 1980: “You can’t play it on the gig if you haven’t played it in the shed.”

A note on the contributors, none of whom I have heard from since the early Eighties: The John Cage interview was reprinted from a magazine called *Brilliant Corners* published briefly in Chicago by Art Lange. Lange went on to edit *down beat*, the pre-eminent jazz publication. Frank Rehak called himself the “world’s greatest jazz trombone player,” and he was right. I met him when he was living in the San Francisco branch of Synanon, the drug rehabilitation center. Frank was not allowed to record for the twenty years he was in Synanon, one of the great tragedies of our time, but he feared that if he left there, heroin would kill him. Ironically, one of Synanon’s strategies for keeping people from using dope was to give them free cigarettes, and Frank died of lung cancer.

Stanley Lunetta was a tympanist with the Sacramento symphony. He edited *Source*, a New Music magazine in the Sixties which also included phonograph records. I did a feature on Stan’s music for NPR’s *All Things Considered*, in the Seventies, and the network commentators made fun of the music. Allen Strange wrote one of the first books on electronic music in the Seventies, and since then has been a professor at San Jose (CA) State University. Ben Azarm is an electronic music composer. Henry Kuntz and John Gruntfest were Free Music saxophonists. Henry now runs Hummingbird Records of Berkeley, which produces recordings of world folk music. Eric Nisenson has gone on to write biographies of jazz musicians Miles Davis and John Coltrane. We interviewed Ustad Ali Akbar Khan at his school of Indian Music in Marin County, CA. And I’m showing my paintings on film at Cafe Arrivederci 11 G St. in San Rafael, Sept 19–Oct. 31st., and at the Crepe House, 1755 Polk Street in San Francisco, through August, 1998. My web page is <www.slip.net/~means>.

New Media & Tribal Masks

FRIDAY, September 11th, 7:30PM

*** This is on a different day of the week than normal! ***

McBean Theater, The Exploratorium

3601 Lyon St., San Francisco

(Contact: Trudy Myrrh Reagan, (650) 856-9593.)

PROGRAM:

Lecture by Hervé Fischer and video presentation by Ginette Major, the first recipients of the Makepeace Tsao Award. Distinguished guests from afar!

We will hear about the adventurous, internationally recognized exhibits that Hervé Fischer and Ginette Major have produced in Montréal since 1986, how this has helped the acceptance of new, technological media. They believe these media bring fundamental changes in the art world, primarily because their immediacy bridges the gap between artists and ordinary people. In this way they evoke the sophisticated art of tribal cultures, where art is part of everyday experience. Also, the lack of rare objects subverts the whole system of museums, art markets and an elite that collects these objects as symbols of its social and political power.

Leonardo/ISAST (International Society of the Arts, Sciences and Technology) honors Hervé Fischer and Ginette Major with the Makepeace Tsao Award. This is given to those who have increased public awareness of art forms involving science and technology, particularly through curating exhibitions.

From 1985 to 1996 Fischer and Major curated the annual *Images du Futur* exhibitions of electronic art in Montréal. Their organization, *La Cité des Arts et des Nouvelles Technologies de Montréal*, continues to promote internationally outstanding works through its permanent Cyberworld exhibit of multimedia art begun in 1997, its electronic cafe and its web site. *La Cité* has several other ongoing projects.

Leonardo/ISAST publishes the journal, *Leonardo*, and awards other prizes for accomplishment in the arts that relate to science and technology.

Co-sponsored by Ylem: Artists Using Science and Technology and Leonardo/ISAST. *Free, open to the public and wheelchair accessible.*

FREE Memberships!

We're looking for a few volunteers to assist YLEM with its Membership Programs and Forums. This is a great opportunity to:

- Network with respected international artists
- Learn how non-profit organizations like YLEM thrive
- Have fun in a collaborative and creative environment
- And get a FREE membership too!

For more info, please contact:

Eleanor Kent (Membership Program)
<ekent@well.com>, (415) 647-8503

Trudy Reagan (Forums Program),
<TrudyMyrrh@aol.com>, (650) 856-9593

...or write us at the address on this newsletter.

Many Ylem members were represented at the Art of Digital Technology at the Santa Clara County Fair in San Jose in August: Diane Cassidy, Diane Fenster, Roger Ferragallo, Helen Golden, Therese Lahaie, Guy Marsden, Mike McGuire, Mike Mosher, Ken Musgrave, Myrrh, Beverly Reiser and Nancy Tector. One of the curators, **Barbara Allie** was so impressed with the quality of our group that she joined.

Tiffany Shlain and Ken Goldberg met at Canessa Gallery in 1997 where her father, **Leonard Shlain** was lecturing on the book he was writing, *Alphabet vs. the Goddess: the Conflict between the Word and the Image*. Now they are betrothed!

At the Art & Mathematics Conference in Berkeley in August, organized by Nat Friedman and Carlo Séquin, Bruce Beasley, Ken Herrick and Helaman Ferguson gave presentations. Many more members attended and informally showed their work.

Trudy Myrrh Reagan will be one of twelve artists visiting the city of Albi, France on an exchange program in October.

Saturday, October 31st, 7:30 pm

Techno-Halloween party

Mary Teetor—584 Page St., San Francisco, CA. (415) 626-0322

This lovingly restored Victorian home will be a great backdrop for techno-weird costumes! Bring finger food or beverages.

If you want to do any installation or multimedia setup, arrange it with her ahead of time. Tessalators! Bring books, puzzles and projects. Mary Teetor is a tiling fanatic.

It's easy to find, (it's near Haight and Fillmore) but hard to park. Carpooling or public transit advisable. Follow the freeway signs to 101 North, stay on the freeway past the Golden Gate Bridge/Van Ness exit, get off at Fell St. Go left on Fillmore, two blocks later turn left on Page. By Muni bus: #22 Fillmore, or any bus on Haight St. (#6, #7, #71) gets you there. If you wish, you may want to costume up after you arrive!

Saturday, September 26, 6:30 pm—POTLUCK

An Ylem Salon in Marin County!

Studio of Glenneth Lambert—3840 Finley Rd., Bldg. 32, studio #107; Santa Rosa. (707) 528-4ART; <gleneth@sonic.net>

Bring food for dinner and your art, including videos, to share.

Glenneth writes: My work is mainly ceramic sculpture (the latest ones are sculptural lights) and computer graphics. I have combined both in some works. I also can share video from art presentations put on by *The FINE ART Café*—an art promotion business which will eventually have its own site. It will offer expressive art and performances with elegant food & wine.

Directions: From Hwy 101 (N or S to Santa Rosa) take Hwy 12 W towards Sebastopol. Turn left @ the first signal which is the Fulton/Wright corner. Turn left and travel approx. ½ mile to Finley Rd. (country store on L corner). Turn left on Finley & go approx. ½ mile to 3840 Finley (Large 2 story green building) where there is a sign on the fence for "The Studio". Pull in driveway before it & follow it behind parking behind & in front of building 32 (directly behind it). Come in middle doors, go left to the last door on left—Studio 107. See you there!

Interview With John Cage

by Art Lange

AL: Do you differentiate between chance operations by a performer and improvisation by a performer? Or do you see it as being the same thing?

JC: No, chance operations are a discipline, and improvisation is rarely a discipline. Though at the present time it's one of my concerns, how to make improvisation a discipline. But then I mean doing something beyond the control of the ego. Improvisation is generally playing what you know, and what you like, and what you feel. But those feelings and likes are what Zen would like us to become free of.

AL: Do you think there is a place in your music for non-musical performers, people without musical training, to perform your compositions musically?

(3) JC: Some of my compositions can be done that way.

AL: Do you think that would help escape the idea of an improviser performing what he already knows, what he's familiar with, what he's already played? Someone who isn't familiar with anything along those lines might create something on the spur of the moment, not more original, but perhaps fresher.

JC: No, I don't think so. Because when people don't know anything about music and improvise it, as for instance Kurt Schwitters did, you get something that is elementary from a musical point of view because it begins again from a kindergarten level. Schwitters was fascinated by things like sequences and repetitions, but beginning at

another level, another pitch level and those ideas are no longer necessary. And yet from the point of view of a person who had no musical experience, they're fascinating. That's what happens with a good deal of electronic music now. Because the people who use electronics for the most part skip the business of studying music and so, frequently, like Pierre Schaeffer in France, they do things that are not really interesting musically. Because they don't have any musical experience. I don't mean that one has to study music to do interesting electronic music. But what I do mean is that one shouldn't become fascinated by elementary musical devices simply because one hasn't had any musical experience.

AL: Composer Ned Rorem has said "Omnipresence of music derives not from love of sound but from fear of silence." Do you think this is true?

JC: Silence is sound, so I don't know what he's saying.

AL: I think he's taking it at a different approach, say, people are afraid of sounds they can't hear, they're afraid of that emptiness...

JC: What they are afraid of is they themselves not making a sound. Because sounds are being made all around them. In fact, they are making two sounds themselves without hearing them: the nervous system and the blood circulating.

AL: Do you think there is too much sound around us constantly?

JC: No, I think there is just the right amount.



From the right: Miles Davis, John Coltrane and Frank Rehak. From the CBS Jazz Special 1959.

I NEVER EVEN HELD A TROMBONE IN MY HANDS UNTIL I joined the Navy in World War II. I was seventeen, and I knew when I turned eighteen I'd be drafted and wouldn't have any choices, so I auditioned for the Navy Music Academy, made it with some effort, and was shipped to Hawaii, where I continued playing baritone horn and cello in concert orchestras. But then one day the order came down that anyone playing in the dance band would not be assigned to loading ammunition. Now, with my razor-sharp mind I figured out that ammunition got loaded below decks, and that's where the Kamikaze pilots aimed for, so I didn't want to be there. So I went to the dance band director and told him I played trombone. I knew nothing about how to play the one they issued me, but the mouthpiece was the same size as the baritone horn's, so I blew a B^b arpeggio in the first position and they let me into the dance band.

But new records were impossible to buy in Hawaii during the war. One day, though, somebody managed to smuggle in a new record on a ship Charlie Parker's "Now's the Time" and "Billie's Bounce". The guys I hung out with played it over and over for six hours, and I just hated it. I thought they were hitting clams, especially the trumpet player, whom I later found out was Miles Davis. Finally I picked up that 78 record and broke it over my knee. Man, I thought they would kill me! I had to tape the record back together and make a recording of it on a wire recorder, because we didn't have tape recorders then. But I finally got into what that record was about, and started trying to teach myself bebop.

After the war I played with a lot of big bands, including Gene Krupa, Jimmie Dorsey, and Dizzy Gillespie. And I worked in the recording studios a lot, including appearing on the Miles Davis-Gil Evans *Miles Ahead* and *Sketches of Spain* albums.

You have to experiment around to find new sounds, and I did a lot of that when I worked with John Cage. John called me up one day (I'd never heard of the name) and said, "I'm interested to know if you can play the trombone without having the notes written out in front of you." And I said, "Do you mean playing jazz?" And he said, "Not quite." So we talked for about five minutes, and he was so intriguing in the way he spoke that I had to meet him, so he came over and we talked for about six hours. He had such a wild outlook on music. John was the most interesting guy I ever played with in my life, bar none. As far as opening up your ears, John Cage was it.

He said, "I've been all through conventional music, I know all about it, and I get my sounds from life—radios, fire engines, glass breaking, people yelling." I thought that was kind of crazy at the time, but it was intriguing. Then he started fooling around with my horn, saying "What happens if you play with the spit valve open, and what happens if you play without a mouthpiece, and what happens if you just play with the mouthpiece alone? What happens if you take this piece off that back end, and what happens if you play it without the bell? What happens if you play it without the slide?" He gave me all these ideas about totally different sounds. And I became hooked. Always in the back of my

head has been the fact that I broke this record over my knee when I heard something new. So I jumped at the chance to play trombone and conch shell on Cage's Twenty-Fifth Anniversary Concert in 1958.

I was the first to play the "Solo for Sliding Trombone." I said to Cage, "The instructions say 'Play any sections, or none.' Does that mean I can get paid for just showing up for three gigs and not even open up my horn case?" And he said, "Why, yes, if that's what you want to do." And I said, "John, you're my man. I'll play for you any time."

A Call From Cage

by Frank Rehak

We also did a piece for thirteen instruments. All of the players were symphony players except Don Butterfield (tuba) and me. We played it three times, and the first time, it was recorded. There were some good moments in it, but the classically-trained guys were so imbued with getting the pure sounds out of their instruments that they couldn't break away from it. But the third time, the thing became alive. We were at the Circle in the Square in Greenwich Village, and they realized what he was trying to do and got very loose, and understood that we weren't supposed to sound good by puritanical standards, that we were trying to get some new sounds. So it was a very enlightening experience, and I did several other pieces with him.

One was called "Theater-Piece." That was also in the Village. It was not necessarily a musical piece. David Tudor played on it, and also chopped his piano up. We had two electricians and two acrobats and two dancers and Don Butterfield and me—there were about a dozen people in all, and as usual John conducted with a stopwatch. There was no classical notation, but we wrote twenty things we wanted to do on 3x5 note cards, shuffled them up, and there was indeterminate factor we could do one for a minute, one for a second, one for a minute and fifty-nine seconds, however you wanted to arrange the time span of each sequence.

This performance was the wildest thing that I had ever seen. The electricians had bolts of electricity shooting across the stage, and one of the dancers had a little electric dog that barked and its eyes lit up. The two acrobats were flying around up on top of us, and Don Butterfield got completely undressed in the middle of this thing: from a seaman's outfit he ended up putting on a tuxedo and blasting away on his tuba. I had a six-pack of hot beer and I was spraying the audience with it. We all went mad. It was hilarious. It just assailed your senses—you didn't know where to look first.

Interview With Ustad Ali Akbar Khan

by Loren Means and Eric Nisenson

EN: The last time I heard you play with John Handy, you began playing Miles Davis composition "All Blues." Do you listen to much jazz?

AK: No. But I heard John Handy playing that piece in the dressing room shortly before we went on stage, and so I started playing it later. One thing that's good about Indian classical music it's such a language, you see, that once you understand it, you can understand any kind of music, of anywhere. Which kind of microtone, which kind of style, what kind of ragas, what kind of mood, what kind of rhythm, what kind of rhythm patterns; there's nothing left after learning Indian classical music.

Once you've learned and know your own style, then you can hear any kind of style and you won't copy it.

LM: Did you hear Western classical music as a child?

AK: Oh, yes, my father knew Western music and I used to hear it at an early age, from three and four years old. Bach, Beethoven, Mozart, all classical. But when I began learning music with my father, he was very strict about not letting me listen to anything but Indian classical music. But once you've learned and know your own style, then you can hear any kind of style and you won't copy it. But it won't come to your mind indirectly. There are many styles of

Indian classical music, and when you're learning you must keep them separate: when you're learning thumri style you're not allowed to hear kalki style, because you must make sure of each style.

Once I was traveling by car from Calcutta to Bombay, and I stopped in a restaurant to eat something. They had a radio on, and suddenly my music came on, you see? And the manager came and changed that station, and put it to the light music. I came to America shortly after that.

LM: How old are the ragas you play?

AK: Many are two or three thousand years old.

LM: Are new ragas being composed now?

AK: Yes, I composed a few ragas, and my father composed many ragas. But there are 75,000 according to the old method. Some ragas have seven notes, some have five notes, some have five ascending and seven descending. And it's more if you make a combination of two ragas, or three or four. The scale and the stretch of each raga, the arrangement of five and seven notes, must be so solid that each note will sound good. That can be called "raga.". Otherwise it's just noise.

EN: How do you use improvisation in Indian classical music?

AK: I don't know if improvisation is the right word to use in this music. Improvisation is composing on the spot without thinking. But I learned from my father, practicing eighteen hours a day for twenty years, repeating ragas until they became like a book in my mind. Now all that is in my head and I just play. But I play nothing new, all the patterns are learned and memorized. There's a system that goes part by part. Sometimes when people hear us, they misunderstand and think we're improvising. But it's all routine work, just like written music. They're fixed compositions.

LM: Don't you change the way a raga is played each time you play it?

AK: Not really. Same gat, same raga, same ascending and descending notes, same beats, but maybe a different approach. But I don't try to make it different, I try to make it better, to get closer to what I was taught by my teacher, according to my memory. But I'm not improvising. Of course, once you have perfected the style, you're free within the composition to let out your feelings, to share the warmth in your soul. But it's within a composition, so you're playing not only what you like, but what ten thousand people have liked.

LM: So you're saying you don't use chance in what you do?

AK: Of course we use chants. We chant in the morning, we chant in the evening...

LM, EN: Thank you, Khansahib.

OPENING LAST MONTH AT THE FIESTA HALL IN Santa Clara, the Art of Digital Technology invitational exhibition will showcase numerous artists from Ylem who create new media, computer art, and cyberart. Curated by Barbara Allie and Barbara Rainforest, this insightful survey of the diversity, complexity and significance of the integration of art and technology is the first of its kind in California. It features works by artists, designers, and educators. Works include photography, painting, printmaking, video, animation, virtual reality, and light, laser, sound, and kinetic sculpture.

Featured among Ylem artists is **Helen Golden**, whose long-standing work in photographic media and, more recently, integration of scanned imagery has culminated in an alluring blend of computer manipulated, dimensional, motorized works. Her innovative approach to extending photography beyond traditional boundaries into dynamic, rotational reliefs reflects a desire to utilize new media yet retain those qualities still inherently photographic.

Guy Marsten's sculpture is a seamless blend of art and technology that combines digital circuits he has wired together with operational hardware that he has programmed himself. These witty and satirical pieces also have a cultural reference, and display random numerical patterns that invite the viewer to contemplate the pattern anomalies, eventually leading him/her to question the trust that we as a society have placed in technology. Though the numerical equations remain perplexing and illogical, Marsten's playful admonishment reads loud and clear.

Also featured is the work of **Roger Ferragallo**, who focuses on light, specifically, the computer as a light generator. With the power of cutting edge software and computer tools, he creates stereoscopic works that are viewed exclusively on a flat panel liquid screen. Ferragallo's interest in biology, astronomy, and new physics is eminently present in his work, which is in itself a testimonial to the promising future of the integration of digital art and science.

Trudy Myrrh Reagan's desire to interpret what computers are telling us has led her to contemplate the more cryptic meaning of information that is

conveyed to her through computer generated imagery, and how this may be translated back into painting and drawing. Inspired by the textural richness of fractal programs and algorithmic textures she creates herself, Reagan produces delicately translucent works that simulate the look of what she sees on-screen, and that almost mimic the appearance of stained-glass. Science imagery provides Reagan with a reference point to investigate levels of cellular, molecular and atomic matter, and elaborate on the meaning of various levels of existence.

A look at *The Art of Digital Technology*

by Patricia Olynyk

The unique characteristics of laser light and notion of a fourth dimension driven by digital media has been the focus of **Charlie Follis'** work over the past 15 years. Follis' stunning work that captures "the most beautiful light in the universe" in simple, geometric cases is representative of his belief that art and technology may be skillfully combined to create work that is sophisticated and extremely visually appealing.

This comprehensive exhibition represents a broad spectrum of new-media work that ultimately allows us to examine how digital technology in the realm of art, design and education is leading us into the new millennium. The Art of Digital Technology will run from July 31 to August 9, 1998 at the Fiesta Hall during the Santa Clara County Fair. Exhibition hours are: Monday through Friday, 2 PM–11 PM and Saturday & Sunday, 1 AM–11 PM. The fairgrounds are located at 344 Tully Road in San Jose. Call (408) 494-3134 for further information.

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Ylem Calendar

... is on Summer holidays. Full calendar listings will resume next issue.

An Interview With Richard Waters

by Loren Means

[On a Monday night in 1972, I attended a Hindemith concert at San Francisco's Jewish Community Center. Seated next to me was Mose Allison, the blues singer. Mose told me that Hindemith was the inspiration for his jazz piano improvisations. When I told him that I wrote about avant-garde music, Mose told me to introduce myself to his drummer, Lee Charlton, who was a member of the farthest-out improvising ensemble on the West Coast, the Gravity Adjusters Expansion Band. Lee in turn introduced me to Richard Waters, who made all of the unique musical instruments for the Gravity Adjusters. I interviewed Richard at his round house in Sebastopol. Richard's Waterphone is now used for special effects by all movie studios that make horror films. Richard was also a member of the jazz group Listen in the late Seventies.]

LM: How did you get started making instruments?

RW: I was a painter-sculptor, and I was making kinetic-phonetic instruments that turned in the wind. I was experimenting with ecological objects like tin cans and piano wire braised together to make a sound, and it evolved into a Waterphone, which is an extension of that idea. The Waterphone is made out of stainless steel. It's almost spherical, it has bronze rods that extend around the perimeter, and it has a neck that you hold it by.

LM: The echo is from the water?

RW: Right, that's why it's called a Waterphone. It has about half a cup of water in the bottom. Sound travels through water at a different velocity than it does through air, so you get an echo effect. I'm involved with string, wind, and percussive instruments. At this point I'm trying to combine all three ideas in one instrument, like the aeolian harp I'm making out of car parts. It can be strummed, bowed, hit, or blown into. Then there's my instrument that's made out of three aluminum drip coffee tops,

set into a wooden block that has holes drilled into it. It's essentially a percussive instrument, but it can be played with a bow or mallets.

LM: When you make an instrument, do you intend it to be played a certain way?

RW: No. I try to stay as loose and experimental as I can when I'm making the instruments, and yet I want to be extremely aware of what's gone on before, and even more aware of what's happening right then when I'm making it. A lot of that's taking advantage of chance, and it's a learning process.

LM: You're using chance when you make an instrument?

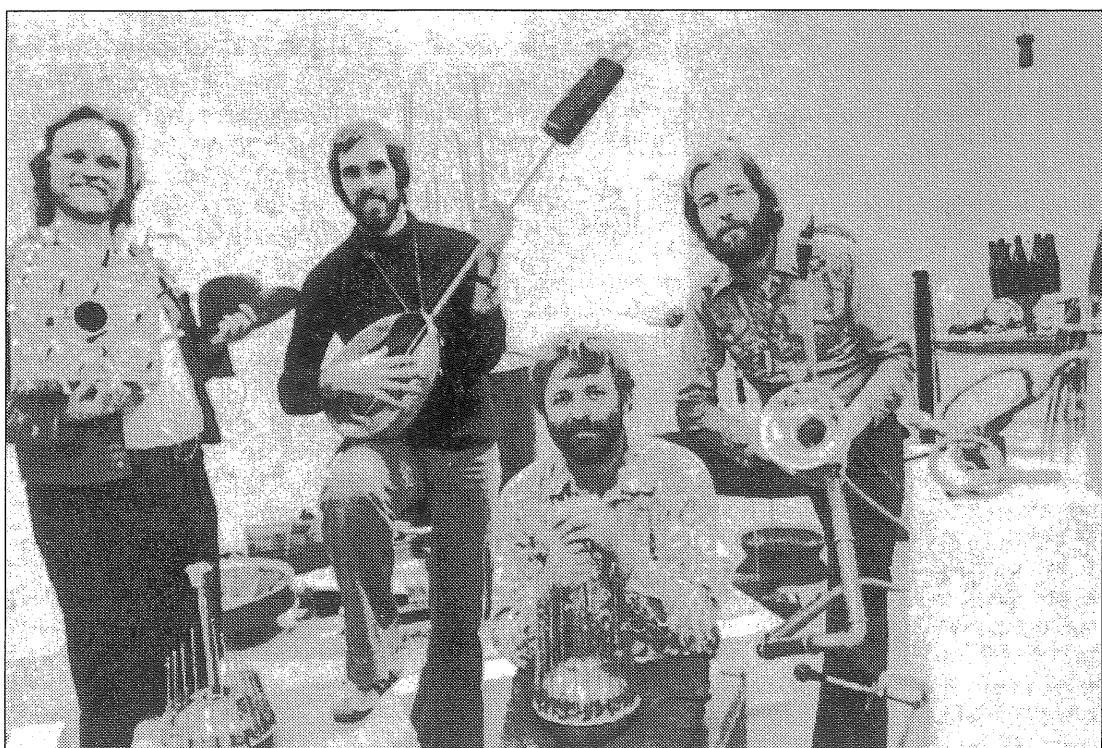
RW: To a certain degree. I might try certain kinds of tonal relationships that would be a chance thing, and we have a lot of chance in our music. Yet it goes beyond that, because coincidence comes in, and so you know that other things are starting to happen...

LM: Are you more concerned with the utility of an instrument when you make it, or with its status as a work of art?

RW: I'm what you'd call a fence-straddler. The name of my individual company, if you'd call it that, is Multi-Media. I figure that I'm into audio-visuals. And the closer I cut that edge, the better I like it. If I can get something that looks really far out and sounds far out, that's it. If it looks good and sounds good, I could pour a little perfume on it and it would smell good...

LM: The first band to use your instruments was the Gravity Adjusters Expansion Band?

RW: Yeah, that band was started about 1967 by (Australian pianist) Bryce Rhode, Tommy Beeson (bass), and Lee Charlton. I used to drop by their rehearsals with my instruments, and we started playing together. Since then about 200 people have played with the band at one time or another. On our album, One, (Nocturne 332), which was entirely improvised, most of the instruments we played were acoustic, but we also used a synthesizer, and it fit in really nice. We often play with electric guitar players or whoever is



Caption: The Gravity Adjusters Expansion Band: Chuck Day, Tom Dondelinger, Richard Waters, and Lee Charlton. Ear Vol 8, No.2, 1980.

stoked on playing with us. (New Zealand pianist) Mike Nock is a very sensitive player, he's an exception among synthesizer players. When he played with us, he listened a lot.

LM: Is the Gravity Adjusters a jazz band?

RW: No, it isn't a jazz band, but jazz has been a strong influence, especially with the rest of the players. A lot of the players that have played with us are jazz-oriented, however, that's not always true. We've played with some symphony players, some of the African ballet drummers and harp players. On our recording session, we had about 150 instruments that 7 or 8 people played. You have to move through those instruments as you're playing them, that means you can't just stumble along, so there's a certain amount of dance or action. It's not just holding onto the instrument or sitting at one instrument you move through things, and that's a form of theater, too.

LM: Does a person have to be a musician to play one of your instruments?

RW: No, that's one of the nice things about them. However, some people who are not musicians don't listen well, so the consequently don't play as well because they haven't brought themselves around to hearing. But, generally speaking, anybody can play my instruments. What they achieve on the instruments is up to them.

LM: And people teach you how to play your instruments?

RW: Right. A lot of my instruments, I'll think I know how to play them, and I'll turn them over to somebody else to play for a while, and they'll get sounds out of them that I didn't even know were in there. It's really learning thing.

LM: Most of your instruments can be played in a number of ways...

RW: Many of them can. That's what I like about our rehearsals—there's a striving toward inventiveness as far as sound, and we keep combining different instruments together and different sounding devices together to get sounds that we haven't heard before. We're not looking to sound like anything else you ever heard. We're looking to sound really strange and out there somewhere.

LM: Now that the Gravity Adjusters have achieved an international reputation as one of the longest-established free-improvising groups in the world, I understand you've started writing compositions for the band...

RW: I'm writing pieces for the group, but they're like the group is—they're audio-visual pieces. They're departure points, they're disciplines, they're charts. They're not individually notated. They're what I would think a chart of ours would look like if it could be individually notated. With them we get to places that we couldn't get to if we just played totally free all of the time. By doing that, when we intervene with the free pieces next to some of these, it gives the free pieces more power because of the discipline in the other pieces.

LM: So you suggest disciplines but not specific pitches?

RW: Right, and everybody in the band is really composing the music even though I write out the audio-visual chart. I think of it as a living sculpture approach—we can create just about any kind of sound on any level, but we need to organize to do it.

LM: Do you consider yourself part of the Free Music scene?

RW: For some reason, I've been identified with New Music rather than Free Music. I don't see a lot of difference between them—maybe New Music has a little more concept to it, and relates slightly more to a classical background. But when I was at the Center for Music Experiment at UC San Diego recently on a Ford Foundation grant, there were several performances, and some of the people there related classically via their instruments, but most of it was away from that—they were into ritual and toning and vibrations and theater and that direction.

LM: That sounds like Pauline Oliveros' influence.

RW: Yeah, she and a lot of people there are into that. But we're that way, too. Our concert at the Center for World Music got highly theatrical, with a lot of comedy on stage, and a lot of verbiage. We ended the first piece with a gourd collision with a microphone. The gourd exploded and seeds went all over the stage—that wasn't planned out, but we were playing one of the charts and it came out that way. The Gravity Adjusters are between Harry Partch and Spike Jones. We have that erratic comedy thing that Spike had, but we also are exploratory in terms of tonality the way Harry was.



Caption: Richard Waters playing the Waterphone (back: Lee Charlton), The Gravity Adjusters Expansion Band at the Free Music Festival. Photo: Ann Conradsen.

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Interview With Allen Strange

by Ben Azarm

BA: You have been working with the Electric Weasel Ensemble for quite some time. Have you found it difficult to incorporate electronic music into a group sound?

AS: Before Weasel Ensemble was formed, for some reason my acoustic music always seemed to deal with the idea of consort. Early in my training I was very involved with Renaissance music as a lute player, and what interests me in electronic, which is diametrically opposed to many other composers, is not trying to get as many different kinds of voices going at one time, but trying to get as many of the same kinds of things. I deal with densities, with texture, with space; and if each voice is different, then each voice is going to be listened to, and you are going to miss actually what is happening with control of density, texture, and space. I am very fortunate that I have been surrounded by very competent players in my ensemble, and for this reason it has not been too difficult to incorporate these elements into the group sound. So far, it has been a pretty easy thing to put together because we think basically alike. Maybe with different groups of musicians it would be a different situation.

BA: What do you consider as a nontraditional aspect of your music?

AS: One aspect is the exploratory aspect of my music. In the past 10 years I have been exploring the different kinds of tuning systems. I am mainly referring to linear pitch concept in acoustic music; it is a lot easier to deal with it in electronic music.

At some point everything clicks and it is a homogeneous system as is equal-tempered tuning—not necessarily 12-tone, but equal division of some interval and as long as the system is consistent, it is going to make structural sense. The inconsistency is what we call dissonance. I started playing with that in 1969, and I have been playing with it ever

since. I had a chance to get a better handle on it at Stanford University, at the Artificial Intelligence Center in 1974, where I could actually play with scales and listen to them.

BA: Of how much help have the linear FM oscillators been in dealing with this kind of tuning system?

AS: On one structural level we perceive certain things in sound exponentially, and on another structural level there is linear business going on. For example, the problem with exponential FM is that when you start doing FM in an audio range, there is an offset of the center frequency. Now, the beauty of any kind of modulation is that you get sums and differences which I base my tuning system on with exponential FM. As you crank up the index, the center pitch starts moving, and so, if you try to use modulation as a timbral control, along with that timbre change comes a pitch change. With linear FM, you don't get that and the pitch remains the same. That linear control is actually meant for audio signal. It is meant as an audio input for audio rate in FM. But, there is this exponential input for your normal keyboard stuff. All this stuff had been sitting there all along, and it took John Chowning at Stanford to change one term in the formula to say, "Hey, this sounds good, too."

BA: One of the oscillators in Don Buchla's Music Easel offers that feature.

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AS: Yeah, there is a pot called timbre, and as you raise that pot, it replicates the same kinds of timbral structure that Chowning is able to achieve. Whether that is exact linear FM or not, I am not sure. I think it is, because the range of the oscillator is limited to a certain degree. Since then, he has gone on to get those same kinds of timbral evolutions using linear FM process. It is some way of overloading certain ICs that distort in a particular and very predictable way. Don Buchla is a very off-the-wall designer. People would look at his circuits and try to analyze them and they just throw up their hands.



Allen Strange at 1750 Arch St.,
Ann Conradien, Ear 1980.

Interview With Stanley Lunetta

by Loren Means

LM: How did you get started doing electronic music?

SL: I was going for a Masters in composition at the University of California at Davis, and I became aware of electronic music when Stockhausen came to the campus. That was around 1964. The Tape Music Center had been going on in San Francisco for a couple of years, but it was before they had the first Buchla box. I was influenced by David Tudor; at that time he was at Davis doing electronics and everything. I was composing for conventional instruments and I'd done some tape pieces, which is different from electronic music. You can do tape pieces with sound effects, a microphone, and a tape recorder—that's not the same thing. My first piece was with a guitar and tape recorder. Then I got some mixers and I built my first oscillator.

LM: Did you study electronics?

SL: No. But I was never able to afford a prebuilt electronic music system, so in 1969 I started building one. I learned how to do things "on the job," so the construction was accompanied by learning what it would do. I'm not an engineer at all, so I learned how something worked and then I

built that function in as I got smarter. I started building

Moosack Machines, which are a series of compositions. The first one was made for the Crocker Art Museum in Sacramento, and it was made to be an artistic-looking setup. It was an electronic machine

but it was spread out, its innards were visible, and the wires, the transistors, the resistors and all that were used for their visual as well as their electronic use. The hoops of the sculpture were really the oscillators that were making the pitches, and I stretched them out so that they were exposed to the light and the heat, and that made subtle variation on the piece. They looked sort of neat, with the resistors and the wires sticking out. I made a mobile-type affair with them.

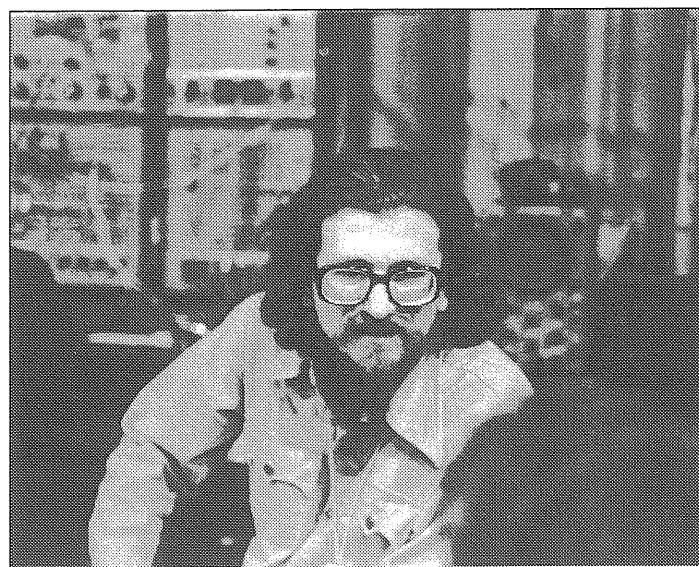
The base had photoresistors and heat-sensitive elements and proximity detectors like they use in burglar alarms. And there was a set of spinning discs which were on little electric motors. The electric motors were turned on and off by the music, and the discs, when they spun, the holes would uncover and cover the photoresistors which would make different

pitches in the oscillators, which would make the music different, which would make the discs turn differently—it was a big loop.

There were several places where if you walked in front of the thing, you interrupted a light beam and that had an effect on that whole loop. And there were heat detectors up by the air-conditioning-heating system which was automatic and kept going on and off to keep the room at a certain temperature. So the piece would change depending on whether the heat was on or off. There were sensors on the sides of the building so that in the morning when the sun shone on one side the piece sounded a certain way, then when the sun was at twelve o'clock it sounded different, and when the sun started to go down it sounded different again. At night it sounded totally different, and on cloudy days it sounded different it was a weather indicator, too. And it played all day, every day, for six weeks.

When I had to take the sculpture out of the museum, I broke it down. The sculpture part is now hanging on the wall of the basement studio in my house in Sacramento. And the processing unit became the first module of my digital machine.

When we decided to record the Machine for Source, the magazine I edited in the Sixties, we took the pieces to the chorus room at UC Davis and tried to put it back together, which was an all-day affair. Because the chorus room had risers, we couldn't put it on the level like we had at the museum, so when it got put together it sounded different. It was a lot more vocal at the university, and it was a little bit more radical sounding. It was much politer in the museum. The recording was a little more violent. Of course, it was hooked up somewhat differently.



Right: Stanley Lunetta. Ann Conradsen, *Ear Magazine*, 1981.

Far Right: The Obelisk (Moosack Machine) at the Crocker Art Museum. *Ear*, 1981.



LM: Did that first Machine use chance elements more than the ones you've built since?

SL: Yes, it was chancy in one way, but it had fewer possibilities. The newer Machines have more possibilities, but at the same time they have more control. That makes a large difference in how they work.

LM: When I first heard the record, I was impressed with the structural organization, and I was surprised to find that you hadn't organized the composition: it organized itself.

SL: It's like if you get a series of possibilities, like "What's the common denominator of 5, 12, and 17," and you get 5 and 12 and 17 until they all come together and start over again. In a sense that's what the Machine did. Also, if you set your odds correctly, it's going to tend to do something sensible. If you decide what its possibilities are going to be, you don't have just anything happening. You tune its capabilities.

The performance Machine started out as a simple combination of pieces of equipment that I had built, and as I started adding more to it, it became an integrated system. It's a digital music-making Machine. It makes as many as 16 polyphonic lines, or you can have keyboard-activated things from it. It has its own memory system, so you can either set it to play and do things on its own, or you can perform on it as a performer. It makes live electronic music, right there.

It makes pitches through binary relationships. It counts to a number, and when it reaches that number it goes back and counts to that number again, and the rate at which it goes back and counts again is the frequency of the pitch. The interesting thing to me philosophically about binary processes is that they seem to be nature. We hear in an exponential curve.

LM: Back in 1973 I heard the piece you did with the Sacramento Symphony called "The Unseen Force." I understand you got a National Endowment for the Arts grant to finish the piece in 1975. How did the piece come about?

SL: I was the tympanist for the Sacramento Symphony. One day in 1972, the conductor, Harry Newstone, commissioned a piece from me. Now, you either write a piece because you have suddenly a strong desire to write a certain piece, or else someone asks you to write a piece, and you

start thinking how you're going to do it. In the case of this one, I couldn't get it started for a long time. And then one day I was sitting in my studio at home and I thought, "Oh boy, this is really awful." I'd started several orchestra pieces by then, and they were all stinko, and then one of my friends said, "Why don't you just turn the Machine on and let it play, and then transcribe that for orchestra?"

So we had a couple of yucks over that, and then I thought, "Well, what the hell, I'll turn the Machine on and see what it's playing right now." I had patched this in and that in, and I didn't know what I had it set up at. So I put it on, and it was playing something real simple on one of the voices, a little binary-encoded 16-note melody, and it was sort of cute. I listened to it, and I thought, "Gee, that's a nice little melody." So I slowed it down and went over to the piano, and tried to accompany it. I found out it was in the key of D, a strange little melody, four measures long. So I transcribed that, and then I made a similar hookup on another part of the Machine and it got a second melody, and I thought, "Gee, these are both really nice," and they each had similar chord progressions, one in the key of D and the other sort of in the key of D.

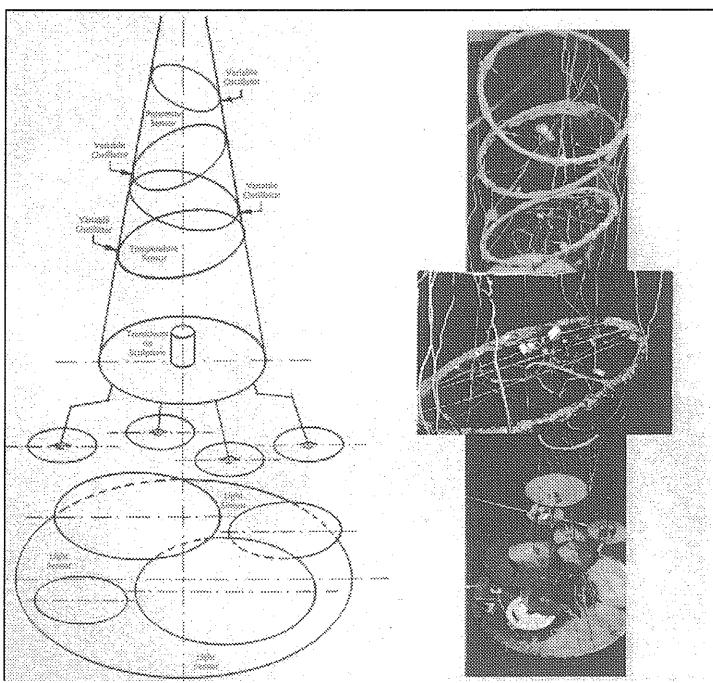
So these melodies became the end of the composition. Then I wrote the rest of the piece backward in time from the ending which the Machine had written, so that the whole orchestra piece is sort of an obscure set of variations on a theme written by a machine.

LM: Do you put the Machine in improvising situations with live musicians?

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SL: Sure. I intended the Machine to be used as a live performance type of instrument. So I formed a group called Amra Arma. It consists of four drummers, one keyboard-reed instrument, one bass player, and the electronic Machine. I'm one of the drummers, and I get the electronic Machine going, but it mainly plays on its own. The group takes its musical impetus from what the machine does. We do a piece we call our "ritual piece," where I set the Machine up in advance to some setting, then I go through a sort of ritual with the Machine where I work with what it has and try to produce a sort of joint composition with it and myself. Then the other members of the group, once they find what direction I have gone, respond to the Machine, and the Machine through me responds to them, and we get a whole piece. Then at times I adjust the Machine so that it is sensitive to sound that it hears, so that when the drummers, play, the Machine accompanies them. So we run the whole gamut, from the live musicians responding to the Machine, to the Machine responding to the live musicians, and all the in-between areas.

I built a series of helmets for Amra Arma. My helmet has tongue-activated keyboards inside. I'd like to be a cyborg.



The Moosack Machine, March 7–April 19, 1970. The Moosack machine is a sculpture that produces, mixes and processes electronic sound. In the present version, the machine routes these sounds to four speakers placed in corners of a room, and also to an audio transducer contained in the sculpture in the center of the room. Stanley Lunetta, Source number 8, 1970, page 36.

A Dialogue Between Allen Strange, John Gruntfest, and Henry Kuntz

JG: Do you find that the sounds you make on the synthesizer are related to each other mathematically in a way similar to what you find in the movement of sound waves in the electrical system itself?

AS: Well, I'm no good at mathematics. I need a pocket calculator to balance my checkbook. But I know enough about physics to know that these little particles of energy that move around don't move around in a harmonic way. They move around in a very random way; it's called Gaussian motion. So I question the presumption that harmonic laws govern forms that take place in nature.

JG: Don't you think all music is harmonically based?

AS: No!

JG: How do you escape the overtone series?

AS: You ignore it. What if you don't want to paint with the color red? You ignore the color red and don't use it.

JG: But it seems the overtone series is always implied somehow...

AS: Maybe the only way that I would accept that it's implied is that our ears will distort harmonically...

HK: Everything implies everything in the first place. I think Schoenberg said dissonances were only farther removed consonances. Harmony is what you hear.

AS: "Harmonic" can mean two things. The musician understands it to mean whole-number ratios. Harmony also means a well-defined system of operations. So, in terms of Marinetti's Futurist system of "noise music", any sound you make within that system is a harmonious sound, and I guarantee you that system had absolutely nothing to do with what we understand as the harmonic overtone series.

HK: Every time the music does something new, some kind of new harmonic relationship takes place, and that's usually the main reason why people can't hear it. They couldn't hear Beethoven, Charlie Parker, they probably can't hear what you're doing, or what I'm doing.

JG: Do synthesizer players get together and jam very much?

AS: Unfortunately not. There aren't that many "live" players on this side of the Bay, for one thing. And second, the Electric Weasel is such an idiomatic group, we've been together so long and played so much with and for each other, that it's really hard for a non-harmonic element (*chuckle*) to come into our ensemble. There have been some delightful and rare exceptions, like working with Anthony Braxton: for some reason, we thought the same way he did, and it just jelled. We're a consort (Allen and Pat Strange, Steve Ruppenthal, and David Morse) playing identical Buchla synthesizers. I was part of another group before that called Biome, and we played English Synthi AKSs.

JG: Entertainment is one of the traditional roles of music. The unfortunate thing is that entertainment has become the dominant role of music in our culture. I like to see music in a more important and sacred place in terms of how it relates to people's daily lives. I practice my instrument, I don't practice entertaining people. But I do try to relate to audiences these days, whereas ten years ago I literally tried to blow people out the door. And I was very successful: I blew people out the door, it became impossible for me to play anywhere, and so I stopped playing in public.

HK: The "sacred space" you're talking about is created by the audience as well as by the musician. We play the primary role, but the energy that's in the room when we come in to play in a sense gives us permission to go out as far as we can. And sometimes the permission isn't there, and you feel that the people do not want to hear where you want to go with the music.

AS: And what do you do when you feel those negative vibes? I think that's a very familiar situation for all of us.

HK: Well, you're scheduled to play, so you pick up the instrument and go out and do it.

AS: Do you ever try to attack the audience? I do.

Azarm: Interview With Allen Strange

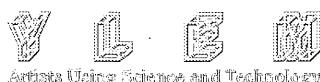
From Page 10

and say it is impossible and it can't possibly work, but it does. That is the advantage of really not being academically trained in the field you are in. You don't know what you are not supposed to do.

BA: What do you teach your students?

AS: I teach techniques of performance; what those

persons do with that technique is up to them. I also teach parametrical relationships where timbre is the inverse of rhythm, and what might be pitch structure for one voice is amplitude structure for another voice, and that is as far as I go. Electronic music is not an aesthetic. You can't just say that electronic music is compositional, because it is not.



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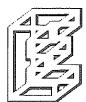
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